

REMARKS

The present application was filed on August 5, 2003 with claims 1 through 30. Claims 10 and 16 were cancelled, without prejudice, in the Amendment and Response to Office Action dated February 25, 2005. Claim 31 was added in the Supplemental Amendment dated April 27, 2005. Claims 1-9, 11-15, and 17-31 are presently pending in the above-identified patent application.

In the Office Action, the Examiner rejected claims 1-31 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,506,497 issued to Kennedy et al. (hereinafter "Kennedy") in view of U.S. Patent Application Publication No. 2005/0107541 issued to Bening (hereinafter "Bening") and U.S. Patent No. 6,521,699 issued to Feder et al. (hereinafter "Feder").

Independent Claims 1, 21, 30 and 31

Independent claims 1, 21, 30, and 31 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kennedy in view of Bening and Feder. Regarding claim 1, the Examiner acknowledges that Kennedy fails to specifically mention a cross-linking agent, and fails to disclose a specific compound meeting the instant claim limitations. The Examiner asserts, however, that Feder discloses a layer similar to that of Kennedy and that Bening teaches 3D polyhedral oligosilsesquioxane polymers that aid in cross-linking and that the POSS polymers taught by the reference appear to meet the instant claim limitations, as the polymer has the same formula, and that n is preferably 8 (0028).

Applicants note that Bening was filed on October 14, 2004, and is related to Provisional Application No. 60/481,579, filed on October 30, 2003. The present patent application was filed on August 5, 2003. Thus, Bening is not available as prior art under 35 U.S.C. §102 or §103.

Independent claims 1, 21, 30, and 31 require a fully condensed polyhedral oligosilsesquioxane,  $\{\text{RSiO}_{1.5}\}_n$ , wherein n equals 8; and at least one chromophore moiety and transparent moiety for use as an *antireflective hardmask composition*. Applicants note that neither Kennedy nor Feder disclose or suggest a fully condensed polyhedral oligosilsesquioxane,  $\{\text{RSiO}_{1.5}\}_n$ , wherein n equals 8; and at least one chromophore moiety and transparent moiety for use as an *antireflective hardmask composition*.

Thus, Kennedy and Feder, alone or in combination, do not disclose or suggest a fully condensed polyhedral oligosilsesquioxane,  $\{\text{RSiO}_{1.5}\}_n$ , wherein n equals 8; and at least one chromophore moiety and transparent moiety for use as an antireflective hardmask composition, as required by independent claims 1, 21, 30, and 31.

Dependent Claims 2-9, 11-15, 17-20 and 22-29

Dependent claims 2-9, 11-15, 17-20, and 22-29 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kennedy in view of Bening and Feder.

5           Claims 2-9, 11-15, and 17-20, and claims 22-29 are dependent on claims 1 and 21, respectively, and are therefore patentably distinguished over Kennedy and Feder (alone or in any combination) because of their dependency from independent claims 1 and 21 for the reasons set forth above, as well as other elements these claims add in combination to their base claim. As noted above, Bening is not available as prior art under 35 U.S.C. §102 or §103.

10           Applicants respectfully submit that all of the pending claims, i.e., claims 1-9, 11-15, and 17-31, are in condition for allowance and such favorable action is earnestly solicited.

          If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

15           The Examiner's attention to this matter is appreciated.

Respectfully submitted,



20           Date: April 27, 2006

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